

BILATEST® Genomic DNA Kit 100



Forensic Applications

Samples and Protocol Adjustments for Forensic Applications

The BILATEST® Genomic DNA kit was tested for Forensic applications: It is suitable not only for the simple and fast isolation of DNA from whole blood, but also for the isolation of DNA on cigarette paper and chewing gum, from oral mucosa cells (taken with a dry swab) and dried blood.

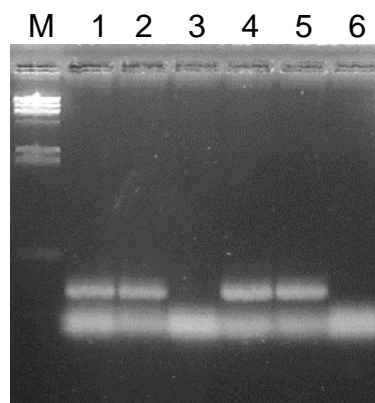
When isolating DNA from hair, ABI-buffer instead of Lysis Buffer (1) has to be used and the incubation time and temperature of the lysis step have to be adjusted.

Purification Protocol for cigarette paper, chewing gum, and oral mucosa cells:

1. Place sample in a tube. Add 125 µl Lysis Buffer (1), mix well (with a Vortex Mixer) and incubate for 5 minutes at room temperature.
 - 1a. Centrifuge for 1 minute and transfer supernatant to a clean tube.
2. Mix 14 µl re-suspended Magnetic Beads (2) with 360 µl DNA Binding Buffer (3) and add to the supernatant. Mix with 10 pipetting strokes and incubate for 5 minutes at room temperature.

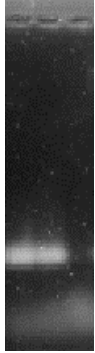
Now follow the standard procedure for blood from step 3.

The DNA isolated with the BILATEST® Genomic DNA kit is PCR-ready. PCR-reaction with 25 µl volumes using Sigma Readymix REDTAQ-PCR Reaction Mix and EN-2 primer (specific for homeobox gene) :



1. Cigarette paper
2. Cigarette paper, dried overnight
3. Cigarette paper, un-used
4. oral mucosa cells on a dry swab
5. oral mucosa cells on a dry swab, dried overnight
6. dry swab, unused
- M λ HindIII/EcoRI

1 2 3



1. chewing gum, freshly chewed
2. chewing gum, 24 hours after chewing
3. chewing gum, unused

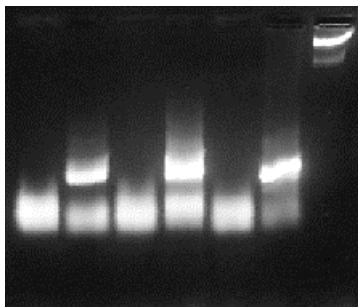
Purification Protocol for hair:

1. Place hair in a tube. Add 125 μ l ABI-Buffer and 5 μ l Proteinase K, mix well and incubate for 48 hours at 42 °C. During incubation 5 μ l Proteinase K has to be added every 8 hours.
 - 1a. Transfer supernatant in a clean tube.
2. Mix 14 μ l resuspended Magnetic Beads (2) with 360 μ l DNA Binding Buffer (3) and add to the supernatant. Mix with 10 pipetting strokes and incubate for 5 minutes at room temperature.

Now follow the standard procedure for blood from step 3.

PCR-reaction with 25 μ l volumes using Sigma Readymix REDTAQ-PCR Reaction Mix and EN-2 primer (specific for homeobox gene):

1 2 3 4 5 6

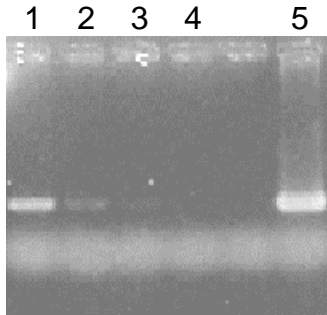


1. hair without root, lysis with BILATEST Lysis Buffer (1)
2. hair without root, lysis with ABI Buffer
3. hair with a root, lysis with BILATEST Lysis Buffer (1)
4. hair with a root, lysis with ABI Buffer
5. water
6. Human Genomic DNA

Purification Protocol for dried, diluted blood:

The blood was diluted and dried in a clean tube (overnight at room temperature) and then treated as described in the standard procedure.

PCR-reaction with 25 μ l volumes using Sigma Readymix REDTAQ-PCR Reaction Mix and EN-2 primer (specific for homeobox gene):



1. 10 μ l blood, dried
2. 1 μ l blood, dried
3. 1 μ l blood, diluted 1:10
4. 1 μ l blood, diluted 1:100
5. Human Genomic DNA